Electronic Control 1995 Room Air Conditioner

Start-Up and Service Instructions

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SAFETY REMINDERS

1 Carry a fire extinguisher in your truck Keep it within reach when using a torch Check fire extinguisher periodically to be sure it is fully loaded and functional

2 Know how to handle oxyacetylene equipment safely Lock the equipment in an upright position in the truck and at the job site

3 Use dry nitrogen or carbon dioxide to pressurize the system for leak checking Always use a good regulator Be careful not to exceed 150 psig test pressure in the hermetic compressor

4 Wear safety goggles and gloves when recovering refrigerant from a system

5 Attend shop safety meetings

START-UP

Refer to operating instructions in Owner's Guide provided with room air conditioner

SERVICE

General Notes — These Start-Up and Service Instructions are provided to assist the trained and qualified service technician in repairing or replacing components of Carrier *electronically controlled (EC) Room Air Conditioner* Disassembly photos are included for the unit Unit physical data is found in Tables 1-9

IMPORTANT Repairing and servicing air conditioners can be hazardous for untrained individuals The instructions printed in this publication are for properly trained and qualified Carrier service technicians only

⚠ WARNING

Before working on any air conditioner, be sure to first disconnect all electric power to the unit to avoid the possibility of electrical shock and personal injury

Before disconnecting, discharge capacitors by shorting capacitors across terminals

Shield coils with cardboard to protect hands against injury from sharp metal edges when removing compressor and other components

When disassembling wiring, use numbered stickers to identify wire leads and terminals This aids in quick, accurate reassembly

Check clearances around scroll and housing before installing fans Before securing fan(s) fasteners, rotate fan by hand to ensure ample clearance

Refer to Carrier Standard Service Techniques, Chapters 1 and 2, for information on checking motors, removing refrigerant, adding oil, and evacuating, dehydrating, and charging system Pay particular attention to all safety warnings for these procedures

NOTE In Carrier Standard Service Techniques, refrigerant removal must always include recovering the refrigerant, not allowing it to escape to the atmosphere

Manufacturer reserves the right to discontinue, or change at any time, specifications or designs without notice and without incurring obligations

Table 1 — Physical and Electrical Data (Single-Phase, 60 Hz)

SERVICE/ DISCRETE NO	CASING (See Table 5)	COOLING CAPACITY (Btuh)*	R-22 CHG (oz. ± 05)	WET BULB Δt F	NAMEPLATE					
					Volts	Voltage Range	Amps	Watts	EER (DOE)	PF (%)
73XCB118301E	305	18,000/ 17,000	37 0	13 5	230/208	253-187	8 3/8 8	1870/ 1840	9 6	99

SERVICE DISCRETE NO.	CAPACITOR (See Table 4)	FAN MOTOR		COMPRESSOR (See Table 2)	COMPRESSOR-START THERMISTOR (See Table 3)	CAPILLARY (See Tables 6 and 7)		
		Carrier Part Number	FLA			Data	Insertion	Number of Tubes
73XCB118301E	RC-2	25901051	1 24	D-5	Z-1	CD-3	CI-1	3

LEGEND

AHAM — Association of Home Appliance Manufacturers
ANSI — American National Standards Institute
DOE — Department of Energy
EER — Energy Efficiency Ratio
FLA — Full Load Amps
PF — Power Factor

Δt — Entering wet-bulb temperature minus leaving wet-bulb temperature based on 67 F room wet-bulb temperature and 95 F dry-bulb outside-air temperature If conditions vary, wet-bulb Δt will vary

*Based on AHAM Standard RAC-1 and ANSI Z234 1

Table 2 — Compressor

KEY NUMBER (See Table 1)	REPLACEMENT PART NUMBER	OIL RECHARGE (oz)	VOLTS (Single-Ph, 60 Hz)	LRA	FLA
D-5	P033-1822	8 0	230/208	44 0	12 8

LEGEND

FLA — Full Load Amps
LRA — Locked Rotor Amps

Table 3 — Compressor-Start Thermistor

KEY NUMBER (See Table 1)	CARRIER NUMBER	VENDOR NUMBER	RESISTANCE (Ohms)
Z-1	42320001	CM305C20C	25

Table 4 — Capacitor

KEY NUMBER (See Table 1)	CARRIER NUMBER	MFD	VOLTS
RC-2	05706030	30/5	370

Table 5 — Casing Dimensions (in.)

KEY NUMBER (See Table 1)	HEIGHT	WIDTH	DEPTH
305	16¾	25⁵⁄₁₆	23¾

Table 6 — Capillary Data

KEY NUMBER (See Table 1)	DIMENSIONS (in)	
	Length (± 002)	ID (± 002)
CD-3	1 Tube — 47 0	1 Tube — 054
	2 Tubes — 29 3	2 Tubes — 054

Table 7 — Capillary Insertion

KEY NUMBER (See Table 1)	DEPTH (in.)	DEPTH (in)
	Condenser Coil Connection Tube	Evaporator Coil Connection Tube
CI-1	1	1

Table 8 — Receptacle, Fuse Type, Wire Size

UNIT NAMEPLATE VOLTAGE	230/208
MAXIMUM NAMEPLATE AMPS	12
OUTLET RATED VOLTS/AMPS	250/15
RECEPTACLE CONFIGURATION	
MFR PART NO Hubbell P & S GE Arrow-Hart	 5661 5661 GE4069-1 5661
TIME-DELAY FUSE OR CIRCUIT BREAKER SIZE (AMPS) FUSE TYPE	15 Cartridge
RECOMMENDED AWG WIRE SIZE*	14

LEGEND

AWG — American Wire Gage

*Based on copper wire at 60 C temperature rating

Table 9 — Electronic Control

ITEM	CARRIER PART NO	INDOOR THERMISTOR
COOLING-ONLY CONTROL	CEPL130015-01	912-710011-P2216

Compressor Replacement

⚠ CAUTION

Stand clear of compressor terminals when working on compressors With system under pressure, terminals may blow causing personal injury

Observe the same safety procedures for rotary compressors as for reciprocating compressors

When changing compressors

1 Follow all safety codes Reminder use protective goggles, work gloves, and water-soaked quenching cloth

2 Shut off all electrical power to unit by removing power cord from outlet, then disconnect all wiring from the compressor

3 Apply field-supplied tap-a-lines to the true (closest to compressor) suction and discharge connections of the compressor

4 Recover the refrigerant charge from the unit After recovering, cut the discharge and suction line process tubes below the tube crimps If you choose a good tubing location for cutting the refrigerant lines initially, the location is easily accessible when making the final joints You can braze the oil piping stub into the new compressor fittings more easily *before* the compressor is put back into the unit

⚠ CAUTION

Oil vapor in piping stubs can ignite from torch flame and cause serious injury Exercise extreme care when brazing, and keep brazing cloth and fire extinguisher handy for emergency use

5 Connect a nitrogen supply to the unit at one of the tap-a-line connectors (5 psig maximum flow), leaving the other connector open to the atmosphere Braze angle valves with stubs to each process tube

6 Remove compressor from unit Refer to Compressor Removal, page 11

7 Remove tap-a-lines from suction and discharge lines Carefully braze the holes closed from where the tap-a-lines were removed

8 Clean system add or replace liquid line filter drier For proper cleaning and flushing, use the Carrier Totalclaim® recovery system or a comparable refrigerant recycling system

9 Install new compressor and braze into place with field-supplied copper slip couplings

10 Connect wiring replace wire terminals if necessary

11 Proceed with evacuation and charging Pinch off lines where angle valves were added Cut off angle valves above pinch-off, and braze tubes

12 Start up unit

PREVENTIVE MAINTENANCE

General

CLEANING — Clean cooling coil and condenser coil Hold flashlight behind coil to see if all spaces are clear Use a hooked wire to remove dirt Dust accumulation obstructs or reduces airflow and results in loss of capacity Coils may be vacuumed when dry Outdoors, unit can be brushed with a stiff brush and fins blown out with compressed air

Thoroughly clean basepan, motors, fan wheels, other components, and all drain passages Vacuum insulation Clean all inside painted surfaces with mild detergent to remove grease

Clean cabinet and grille Mild detergents reduce electrostatic charges on plastic sections of the grille and are good cleaners *Do not use* carbon tetrachloride, solvents, or waxes containing solvents to clean plastic sections

PAINTING — Paint any parts that show evidence of rust with a good rust-resistant paint

WIRING — Check all wiring for deterioration and all electrical contacts for tightness and lack of corrosion

MOUNTING — Make sure unit is secure in window, and level from left to right and from front to rear according to installation instructions provided

Check fans to ensure they are correctly positioned, centered in orifice, and tight on shaft

LEAKS — Check any connections that show evidence of oil or leaks When unit is properly installed, centered, and leveled (see Owners' Guide), check gaskets and wing panels for possible air leakage

CONTROLS — Check unit to ensure all controls are functioning correctly and unit operation is normal

Vibrations can cause unwanted noise Check to be sure no piping is vibrating against any side of unit

System Cleaning/Flushing — For proper cleaning and flushing, use the Carrier Totalclaim recovery system, or a comparable refrigerant recycling system

DISASSEMBLY INFORMATION

⚠ WARNING

Before working on any air conditioner, be sure to first disconnect all electric power to unit to avoid the possibility of electrical shock and personal injury

The Electronic Control Room Air Conditioner is cooling only and has casing key no 305

All units have a slide-out chassis Units can be serviced without removing casing

Filter Removal

1 Place index fingers inside the openings on either side of the filter frame See Fig 1

2 Apply pressure inward toward the center, while pulling filter down and out

3 Vacuum filter, or wash in lukewarm water Shake off excess water and dry thoroughly

4 Replace filter by sliding filter upward behind front grille until filter snaps in place

Front Grille Removal

1 Remove 2 screws located on either side of front grille See Fig 2

NOTE Facing the front of unit, grille screw on the right-hand side serves as a unit security screw

2 Pull grille out and upward, removing it from chassis See Fig 3

3 To replace grille, place grille top on unit top edge and firmly press grille back into position

4 Replace screws

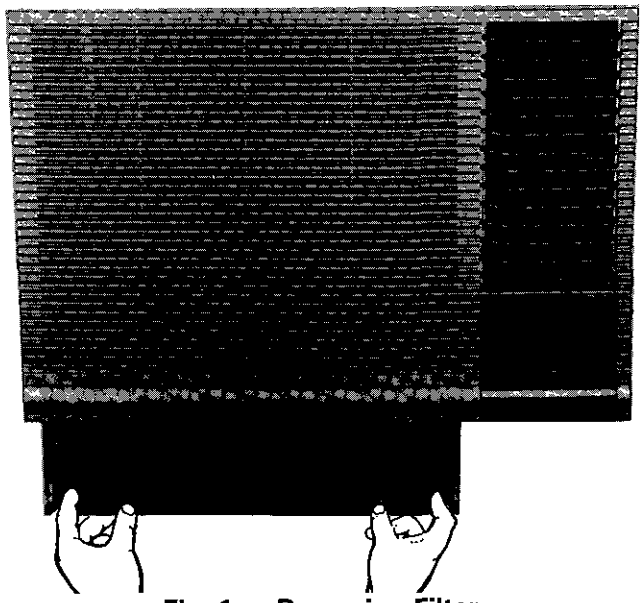


Fig. 1 — Removing Filter

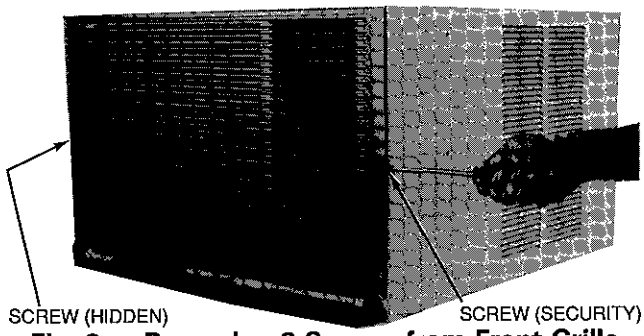


Fig. 2 — Removing 2 Screws from Front Grille

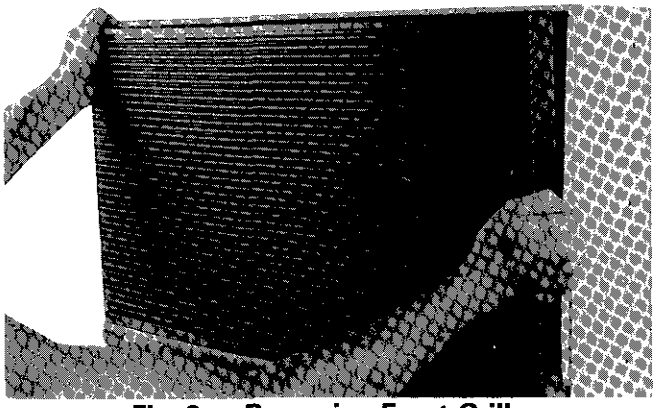


Fig. 3 — Removing Front Grille

Chassis Removal

⚠ CAUTION

Coil fins are sharp Use care when removing chassis from casing to avoid personal injury Do not use plastic parts for lifting or pulling, they are not structural members of the chassis Lift using basepan only Chassis is heavy Obtain assistance for lifting

Chassis can be serviced without removing unit casing from window or wall location

1 Remove front grille See Front Grille Removal instructions, this page

2 If unit has not been installed, remove shipping screw See Fig 4

3 Slide chassis out from casing See Fig 5

4 Reverse above procedure to reinstall chassis in casing Be sure to replace and tighten left-hand screw and right-hand security screw on the front grille

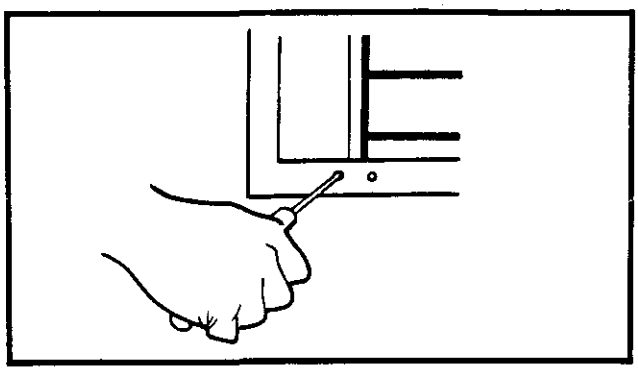


Fig. 4 — Removing Shipping Screw

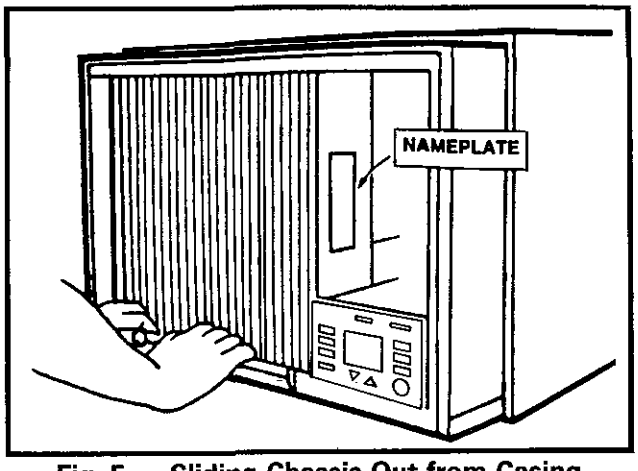


Fig. 5 — Sliding Chassis Out from Casing

Control Box Removal

1 Remove front grille See Front Grille Removal, page 4

⚠ CAUTION

Use care when sliding chassis out of casing so that chassis does not fall Personal injury and/or damage to the unit and surroundings can result

NOTE Sliding chassis partly out of casing ensures that the wiring does not become pinched when the control box is replaced

2 Slide chassis out of casing far enough to access capacitor located on back side of partition See Fig 6

3 Remove water seal material from wire raceway See Fig 6

4 Remove thermistor wire retainer from evaporator coil See Fig 7

5 Remove screw on lower left front of escutcheon plate See Fig 8

6 Using a thin screwdriver, lift tab on left side of escutcheon plate (Fig 9) and swing plate open See Fig 10

7 Remove screw located in bottom center of control box See Fig 10

8 Slide out control box, taking care to lift slightly so that relay board stand-offs clear the basepan See Fig 11 and 12

9 Disconnect fan and compressor leads

When disassembling wiring, use numbered stickers to identify wire leads and terminals This aids in quick, accurate reassembly

10 Reverse above procedure for reassembly

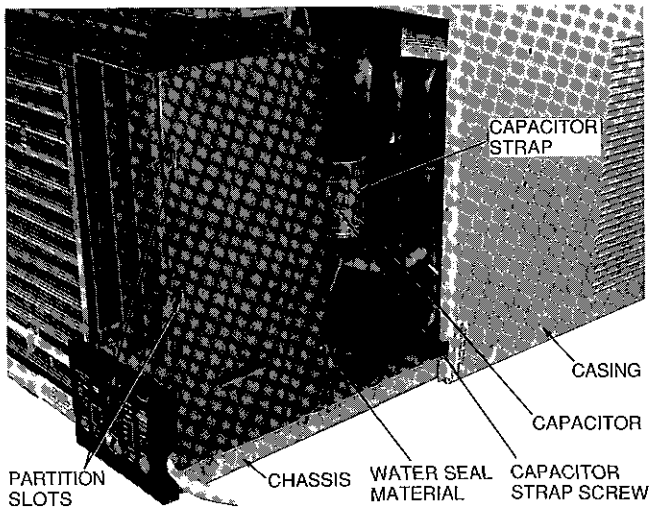


Fig. 6 — Accessing Capacitor and Water Seal Material

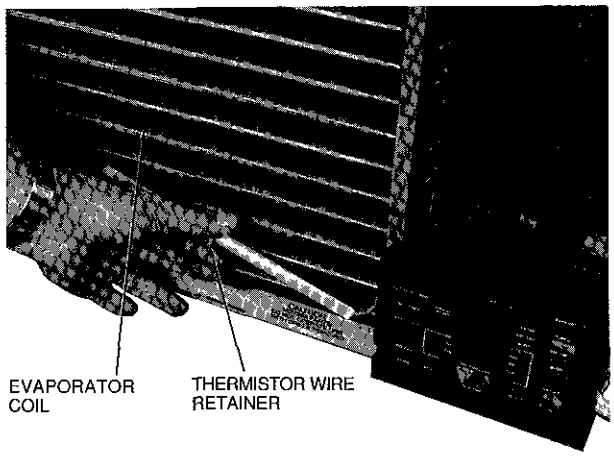


Fig. 7 — Removing Thermistor Wire Retainer

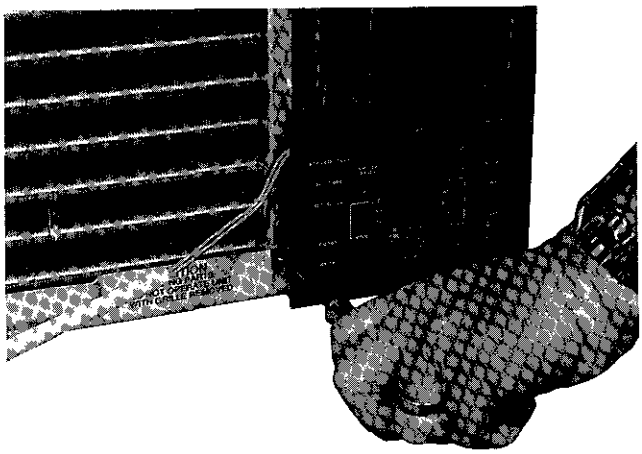


Fig. 8 — Removing Screw on Escutcheon Plate

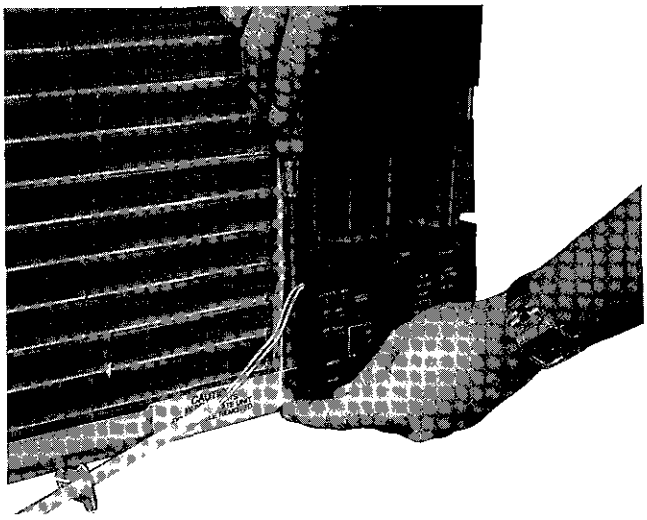


Fig. 9 — Lifting Tab on Left Side of Escutcheon Plate

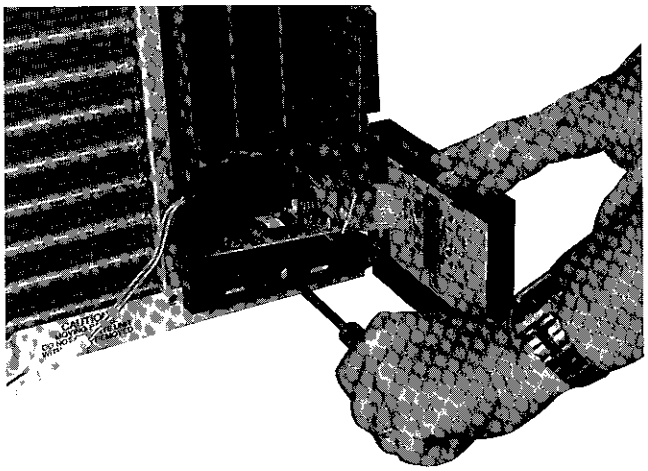


Fig. 10 — Escutcheon Plate Open

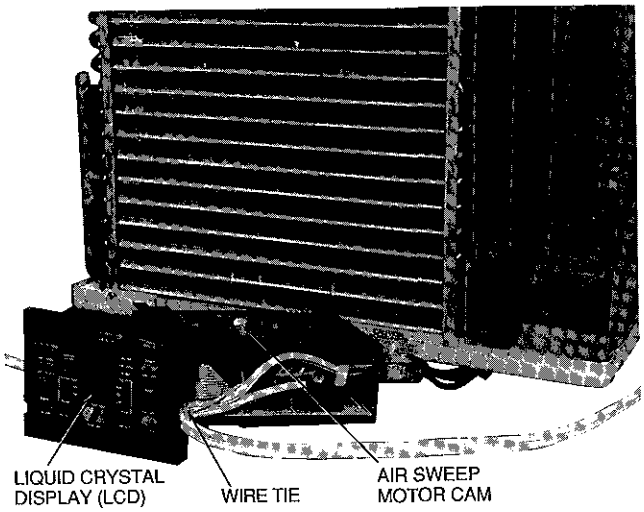


Fig. 11 — Control Box Removed from Unit

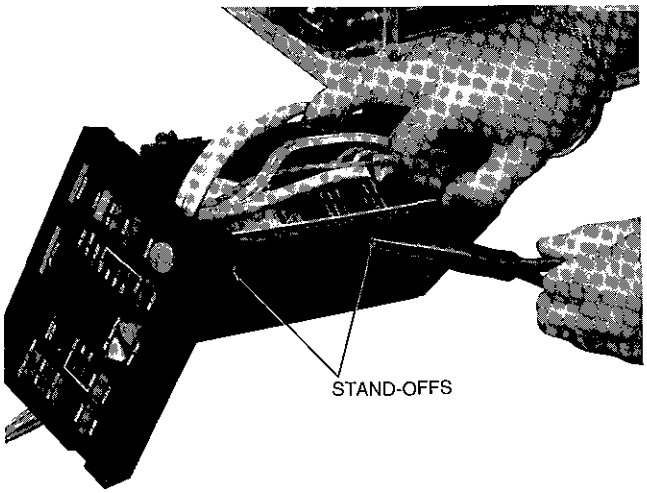


Fig. 12 — Relay Board Stand-Offs

Electronic Control Board Removal

1 Remove chassis from casing See Chassis Removal instructions, page 4

2 Remove control box See Control Box Removal instructions, page 5

3 Cut wire tie holding the service cord See Fig 11

4 Gently lift tabs holding LCD (liquid crystal display) board to rear side of escutcheon plate and remove board See Fig 13

5 Release pressure on relay board stand-offs (Fig 12) at control box, remove relay board Save stand-offs for reassembly

6 Disconnect air sweep motor wire leads See Fig 14

⚠ CAUTION

When replacing electronic control board, be sure the flying wire is attached to the 220 V voltage connection or electronic control board will be damaged See Fig 15

7 Attach the flying wire to the 220-V voltage connection It is important to connect flying wire correctly or electronic control board will be damaged See Fig 15

8 Reverse above procedure for reassembly

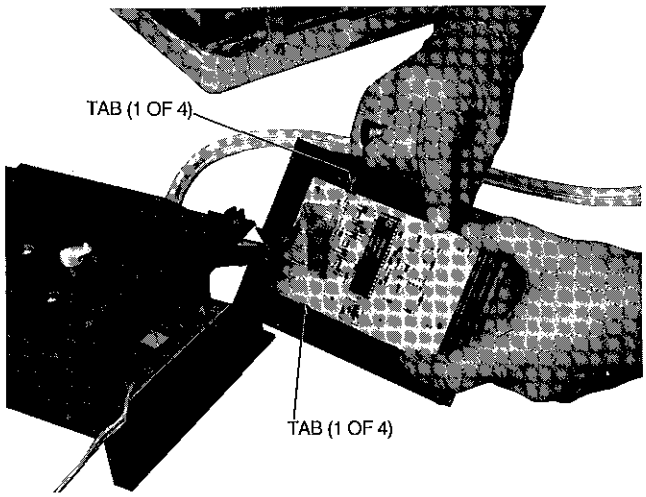


Fig. 13 — Liquid Crystal Display (LCD) Board

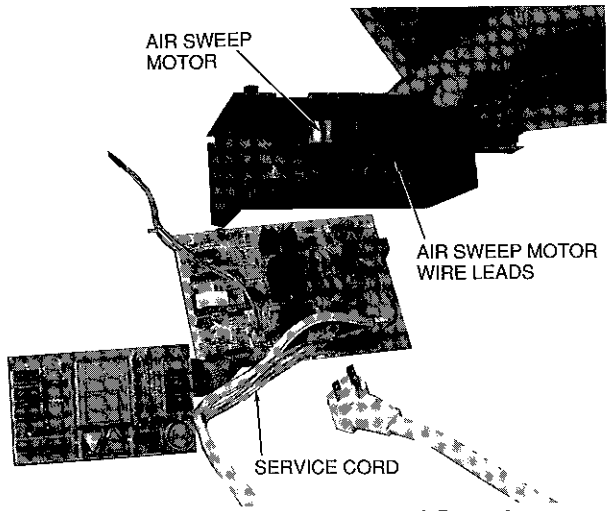
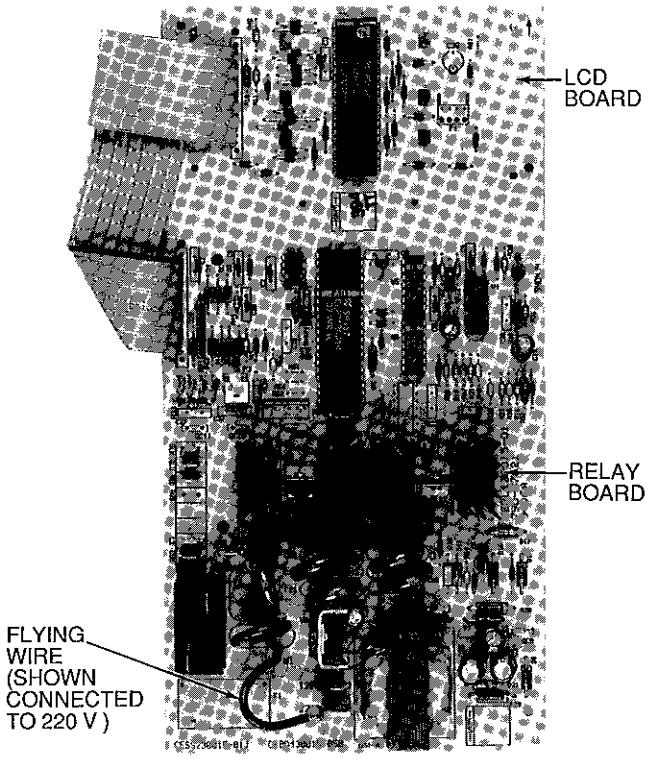


Fig. 14 — Electronic Control Board Removed from Control Box



⚠ CAUTION

When replacing electronic control board, be sure flying wire is attached to the 220-V connection or electronic control board will be damaged

Fig. 15 – Electronic Control Board

Capacitor Removal

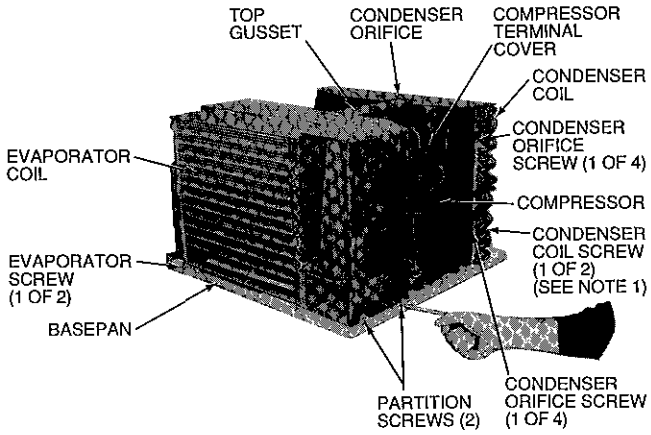
1 Slide chassis out of casing far enough to access capacitor located on back side of partition
2 Pull back rubber boot
3 Before disconnecting, discharge capacitor by shorting capacitor across terminals
4 Remove screw fastening capacitor strap to partition and remove strap (See Fig 6)
5 Carefully disconnect wires from capacitor terminals
6 Reverse above procedure for reassembly

Air Sweep Motor Removal

1 Remove control box and electronic control board See Control Box Removal instructions, page 5, and Electronic Control Board Removal instructions, page 6
2 Carefully disconnect air sweep motor (Fig 14) wire terminations from electronic control board
3 Carefully pull plastic air sweep motor cam from shaft See Fig 11
4 Remove 2 screws securing air sweep motor to control box and remove motor
5 Reverse above procedure for reassembly

Air-Handling System Removal

1 Remove chassis from casing See Chassis Removal instructions, page 4
2 Remove control box See Control Box Removal instructions, page 5
3 Remove 2 screws securing partition to basepan as shown in Fig 16, and 2 screws on left side (Fig 17), and one screw on rear side of partition (Fig 18), in area of motor
4 Remove 2 screws securing evaporator scroll to evaporator tube sheet See Fig 17
5 Remove 4 screws (2 on right side and 2 on left side) securing condenser orifice to condenser coil tube sheet See Fig 16 for location of right-side screws, left-side (2) screws are in similar location on left side
6 Remove compressor terminal cover Disconnect wires from compressor and external overload protector terminals Label wires to aid in reassembly See Fig 16
7 Remove fan motor clip See Fig 18
8 Carefully disengage one of the vertical air deflectors, allowing access to assist in removing air handling system assembly See Fig 19
9 Carefully lift assembly from chassis See Fig 20
10 Reverse above procedure for reassembly, ensuring air-handling system is positioned correctly Tighten all screws



NOTES
1 Second condenser coil screw is located on the back of unit
2 Third and fourth condenser orifice screws are located in same area on opposite end of condenser orifice

Fig. 16 – Unit Chassis

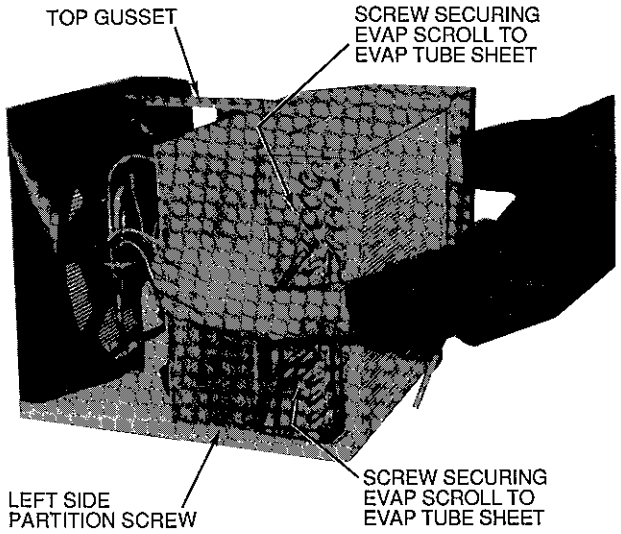

TOP GUSSET
SCREW SECURING EVAP SCROLL TO EVAP TUBE SHEET
LEFT SIDE PARTITION SCREW
SCREW SECURING EVAP SCROLL TO EVAP TUBE SHEET

Fig. 17 – Preparing to Lift Air-Handling System

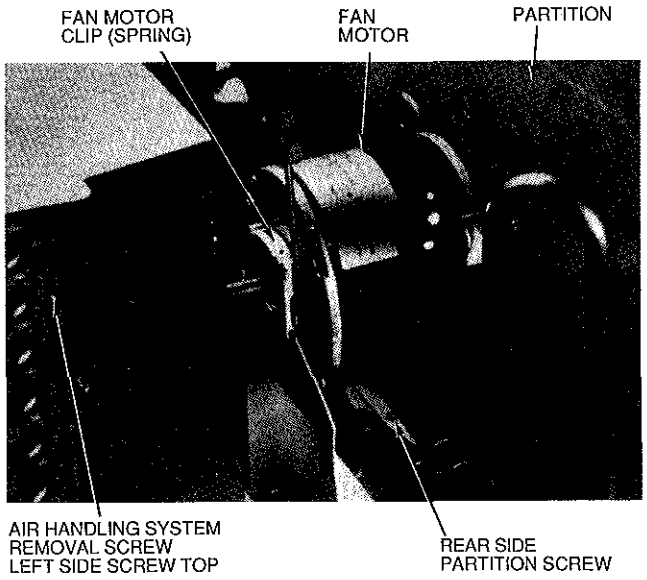

FAN MOTOR CLIP (SPRING)
FAN MOTOR
PARTITION
AIR HANDLING SYSTEM REMOVAL SCREW LEFT SIDE SCREW TOP
REAR SIDE PARTITION SCREW

Fig. 18 — Removing Fan Motor Clip

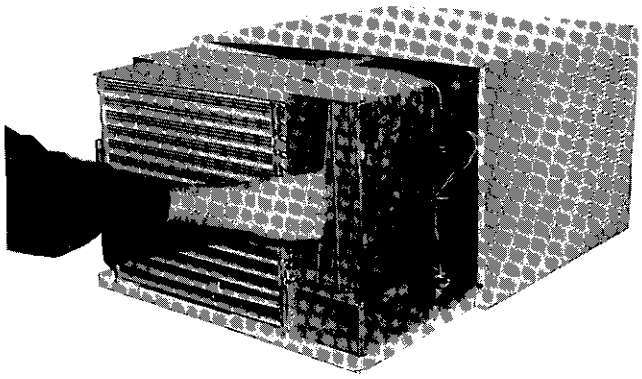


Fig. 19 — Disengaging Vertical Air Deflector

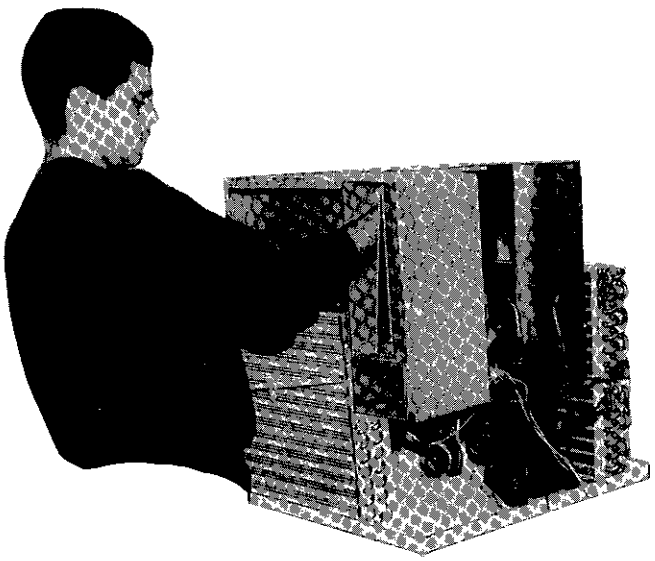


Fig. 20 — Removing Air-Handling System

Evaporator and Condenser Coils Removal (See Fig. 16)

1 Recover all refrigerant from system using a Carrier Totalclaim® or Carrier Totalsave® recovery system, or a comparable refrigerant recovery system Refer to Service section, page 1

2 Remove chassis from casing See Chassis Removal instructions, page 4

3 Remove air-handling system See Air-Handling System Removal instructions, page 7

4 Cut interconnecting tubing and remove evaporator coil from basepan by removing 2 evaporator screws See Fig 16

5 Cut interconnecting tubing and remove condenser coil from basepan by removing 2 condenser coil screws See Fig 16

6 Reverse above procedure for reassembly Reconnect tubing using field-supplied slip coupling Recharge system

Exhaust Door Removal (See Fig. 21)

1 Remove chassis from casing See Chassis Removal instructions on page 4

2 Remove control box from chassis See Control Box Removal instructions, page 5

3 Remove air-handling system See Air-Handling System Removal instructions, page 7

4 Remove 3 screws securing partition to indoor plastic scroll (See Fig 22 and 24)

5 Carefully separate sheet metal partition slots from scroll tabs on both sides by spreading sheet metal sides apart Remove scroll from sheet metal partition (See Fig 6) Exhaust door and cable assembly from door to rotary lever (Fig 21) are now exposed for required repairs or adjustments

6 Reverse above procedure for reassembly

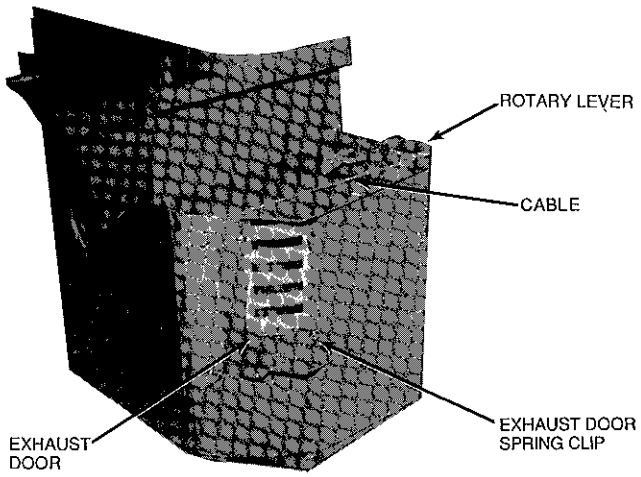
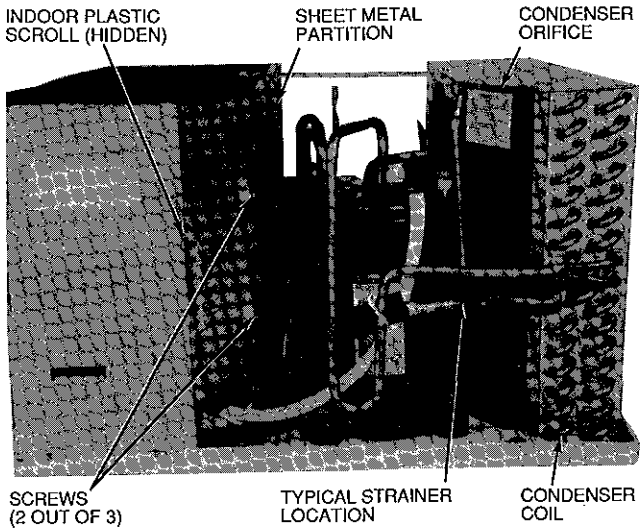


Fig. 21 — Indoor Plastic Scroll Assembly



NOTE: Third screw is located on left side of partition as viewed from front of unit

Fig. 22 — Screws Securing Partition to Indoor Plastic Scroll Assembly

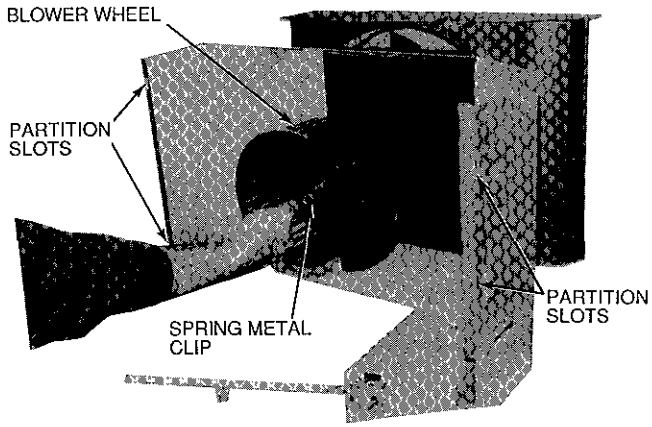


Fig. 23 — Removing Indoor Blower Wheel

Indoor Blower Wheel Adjustment or Removal

1 Remove air-handling system See Air-Handling System Removal instructions, page 7

2 Mark shaft at a point where wheel hub and motor shaft meet to aid in reassembly

3 Remove 3 screws securing partition to evaporator (indoor) scroll See Fig 22 and 24

4 Separate chassis from partition by disengaging at partition slots See Fig 6

5 Remove spring metal clip from blower wheel hub See Fig 23

6 Slide off blower wheel from motor shaft

7 Reverse above procedure for reassembly

NOTE Scroll enclosure is insulated with expanded polystyrene The distance between indoor blower wheel and scroll enclosure is 7/64 inch See Fig 25

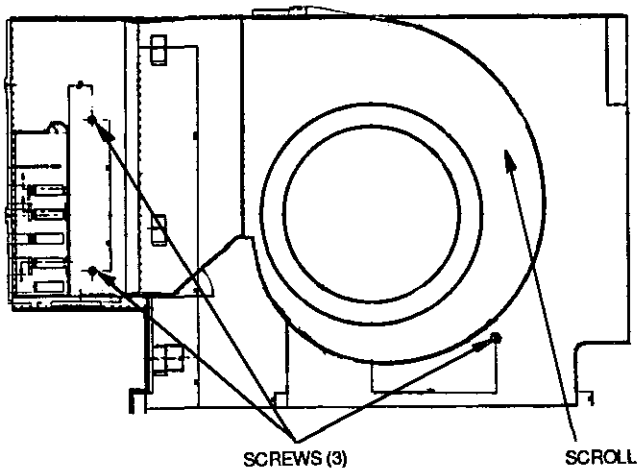


Fig. 24 — Screws Securing Partition to Evaporator Scroll

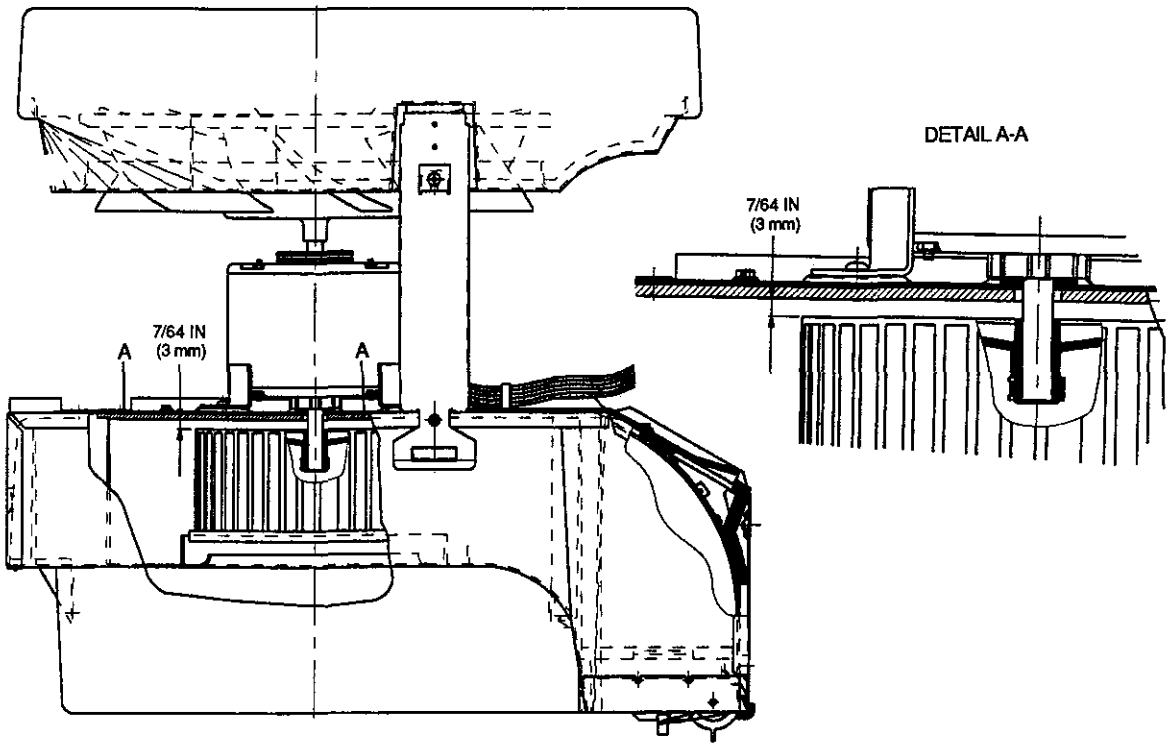


Fig. 25 – Distance Between Indoor Blower Wheel and Partition for Cooling-Only Units

Propeller Fan Adjustment or Removal (See Fig. 26)

1 Remove air-handling system See Air-Handling System Removal instructions, page 7
2 Mark shaft at a point where fan hub and motor shaft meet to aid in reassembly
3 Remove spring metal clip from fan hub See Fig 26
4 Remove fan from motor shaft
5 Reverse above procedure for reassembly

IMPORTANT When replacing fan hub, be sure to place fan hub at the end of the motor shaft

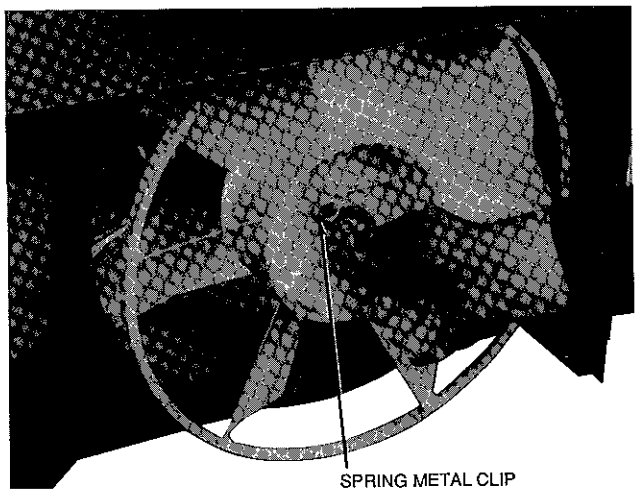


Fig 26 – Removing Propeller Fan

Fan Motor Removal (See Fig. 27)

1 Remove air-handling system See Air-Handling System Removal instructions, page 7
2 Remove indoor blower wheel and propeller fan See Indoor Blower Wheel Adjustment or Removal and Propeller Fan Adjustment or Removal instructions, page 9 and this page
3 Carefully disconnect fan motor wiring from plug
4 Remove 3 screws securing motor to partition See Fig 27
5 Reverse above procedure for reassembly

Fig. 27 – Removing Fan Motor

Compressor Removal (See Fig. 16)

NOTE Before removing compressor, refer to Service section, page 1, and Carrier Standard Service Techniques Manual, Chapters 1 and 2

1 Recover all refrigerant from system using a Carrier Totalclaim® or Carrier Totalsave® recovery system, or a comparable refrigerant recovery system

2 Remove chassis from casing See Chassis Removal instructions, page 4

3 Remove compressor terminal cover (See Fig 16)

4 Disconnect wires from compressor and external overload protector terminals Label wires to aid in reassembly

NOTE Some models may have compressors with internal overload protectors

5 Replace external overload protectors, if needed

6 Disconnect piping Refer to Compressor Replacement section, page 3, being careful to observe all CAUTIONS Remove compressor mounting hex nuts

Strainer Removal and Replacement

NOTE One strainer is installed in the interconnecting tubing between the condenser and capillary tube (For typical location, see Fig 22)

1 Remove chassis from casing See Chassis Removal instructions, page 4

2 Recover all refrigerant from system using a Carrier Totalclaim® or Carrier Totalsave® recovery system, or a comparable system Refer to Service section, page 1

3 Cut tubing 1 in from capillary tube insertion point

4 Use a thin piece of wire to remove strainer from tubing

5 Insert new strainer into tubing Reassemble tubing with field-supplied copper coupling and recharge system

SERVICE POINTS (Check Annually)

1 Clean evaporator and condenser coils Use a hooked wire, bristle brush, compressed air, or a vacuum cleaner to remove dirt from fins

2 Clean basepan and other painted surfaces

3 Clean all drain passages

4 Clean motor and fans

5 Vacuum clean the insulation

6 Paint parts that show evidence of rust with a good rust-resistant paint

7 Check refrigerant connections for evidence of leakage Repair if necessary

8 Check wires for deterioration

9 Check damper controls

10 Fans should be tight on motor shaft

11 Run the unit and eliminate any piping vibration

12 Check to be sure protective sleeve is in place around thermistor

TROUBLESHOOTING

SYMPTOM AND PROBABLE CAUSE	PROBABLE REMEDY
COMPRESSOR DOES NOT RUN	
Opening in Power Circuit	
1 Control off	1 Reset control button
2. Blown fuse	2 Replace fuse
3 Defective wiring	3 Replace wiring
4 Defective service cord	4 Replace service cord
5 Loose electrical connections	5 Tighten connections
6 Faulty switches, thermostat, or fan	6 Replace defective component
Compressor Power Supply Open	
1 Loose leads at compressor terminals	1 Tighten leads
2 Defective motor overload switch	2 Replace switch
3 Defective capacitor	3 Replace capacitor
4. Open compressor windings	4 Replace compressor
5. Seized compressor	*5 Replace compressor*
COMPRESSOR RUNS BUT CYCLES	
Fan Operating Erratically	
1 Loose lead at fan motor	1 Tighten lead
2. Defective or burned out motor	2 Repair or replace motor
3 Outdoor air restricted or recirculating	3 Check for dirty filter, proper clearances around unit — remove any obstructions
4 Overcharge or noncondensables in system	4 Recover refrigerant, evacuate and recharge system according to nameplate specifications
5 Restricted discharge line	5. Check for obstruction in line, replace tubing if required
6 Defective motor overload switch	6 Replace switch
Cycles on Compressor Overload	
1 Defective run capacitor	1 Replace capacitor
2 Defective compressor bearings or valves	2 Replace compressor
3 Greatly restricted indoor air (iced evaporator coil)	3 Defrost evaporator coil
4 Low refrigerant charge	4 Add charge according to approved method
5 Evaporator capillary restricted	5 Replace capillary
6 Liquid line restricted	6 Replace strainer
7. Compressor hot	7 Verify refrigerant charge
8 Weak or inconsistent line power	*8 Check line voltage at time of compressor start-up*
INSUFFICIENT COOLING	
Cooling Air Not Adequate	
1 Dirty filter or coil	1 Clean as required
2. Iced evaporator coil (slightly low refrigerant charge)	2 Recharge
3 Defective fan motor	3 Replace fan motor
Condenser Air Not Adequate	
1 Condenser air restricted	1 Check for obstructions and dirty filter Remedy as required
2 Dirty coil	2 Clean coil
3 Defective fan motor	3 Replace fan motor
Unit Undersized	Re-evaluate unit for proper capacity
Air Leakage	*Check caulking around sleeve Repair if necessary*
Capillary Restricted	Replace capillary
Compressor Flooding	
1 Unit overcharged	1 Recover refrigerant, evacuate and recharge system according to nameplate specifications
2 Low evaporator airflow	2 Clean filter and/or evaporator coil
AIR SWEEP NOT WORKING	
1 Cam disengaged from lever	1 Activate motor and allow cam to re-engage
2 Air sweep motor failure	2 Replace motor
MESSAGE DISPLAY CODES	
d	Unit in Dehumidification mode
CP	Unit in Compressor Protection mode Allow 2 minutes for restart
PF	Power failure
01	Room air thermistor failure

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